

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			

Root Cause	FAULT CATEGORY				
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 142628

Friday, March 11, 2016 9:57:17 AM

142628

Page 2

Item ID: 646.4001

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/20/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging					^{DAS} 28	^{DAS} 27		
Packaging	Memo	0.00				9-89	9-89		JUN 02 2016
Packaging	Identify and pack for shipping as per PPP 646.4001 Location: <u>101</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							<u>MCS</u> JUN 02 2016
Quality Control									

MCS JUN 02 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Friday, March 11, 2016 9:57:14 AM

Page 1

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM
IPP REV:B 15.01.08 AS PER DWG REV.B DD VERF:JLM IPP
REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3301		Manufactured	No			110	Each	0.0000	1	1			DAS 6 9-89
646 3301	DAS 27 9-89								**	140857			DAS 28 9-89
Upper Cutter Assy													
646.3001		Manufactured	No			110	Each	0.0000	1	1			DAS 6 9-89
646 3001	DAS 27 9-89								**	142637			DAS 28 9-89
Lower Cutter Assy													
646.2910		Manufactured	No			110	Each	5.0000	1	1			DAS 6 9-89
646 2910									**				DAS 28 9-89
Deflector													
	DAS 27 9-89				<u>Location</u> CCK050 140085		<u>Loc Qty</u> 5 5						
646.3810		Manufactured	No			110	Each	29.0000	2	2			DAS 6 9-89
646 3810									**				DAS 28 9-89
Bracket													
	DAS 27 9-89				<u>Location</u> cck105 140151 141041 141555		<u>Loc Qty</u> 29 4 15 10						
646.3510		Manufactured	No			110	Each	4.0000	1	1			DAS 6 9-89
646 3510									**				DAS 28 9-89
Strut													
	DAS 27 9-89				<u>Location</u> cck104 140061		<u>Loc Qty</u> 4 4						

MAY 16 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER :			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 3

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

110

Each

2,910.000

61

61

MS21042L3

Nut

BAS
27
9-89

Location

Loc Qty

Loc Code

FP001

163

m133790

163

GA

68

m133790

68

OVER007

2000

m134360

2000

ST304

679

m134039

679

DAS
28
9-89

646.3110

Manufactured

No

110

Each

6.0000

1

1

646 3110

Channel

BAS
27
9-89

Location

Loc Qty

Loc Code

cck020

6

140111

6

DAS
28
9-89

646.3710

Manufactured

No

110

Each

27.0000

1

1

646 3710

Doubler

BAS
27
9-89

Location

Loc Qty

Loc Code

CCK002

27

140753

27

DAS
28
9-89

646.3210

Manufactured

No

110

Each

11.0000

1

1

646 3210

Support

BAS
27
9-89

Location

Loc Qty

Loc Code

cck020

11

141064

11

DAS
28
9-89

Friday, March 11, 2016 9:57:15 AM

Shop Packet Print

DAS
28
9-89
MAY 16 2016

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval 	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 4

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3713
646 3713
Gusset

Manufactured No

110 Each 26.0000 1 1

DAS 6 28
9-89 9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

cck105

1

138216

1

CCK108A

25

140084

25

MS24694-S51

Purchased No

110 Each 163.0000 5 5

DAS 6 28
9-89 9-89

MS24694-S51
Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

ST284

163

m133990

163

AN3-13A

Purchased No

110 Each 70.0000 1 1

DAS 6 28
9-89 9-89

AN3-13A
Bolt

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

20

m127070

20

ST349

50

m134365

50

AN3-4A

Purchased No

110 Each 117.0000 10 10

DAS 6 28
9-89 9-89

AN3-4A
Bolt

DAS
27
9-89

Location

Loc Qty

Loc Code

ST350

117

m133990

117

MAY 14 2016

Friday, March 11, 2016 9:57:15 AM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 5

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

CR3213-5-3

Purchased

No

110

Each

254.0000

14

14

CR3213-5-3

Cherry Rivet

DAS

6

DAS

28

9-89

9-89

EAS

27

9-89

Location

Loc Qty

Loc Code

CCK06

200

m134142

200

ST319

54

m132763

54

MS20470AD5-5.5

Purchased

No

110

Each

974.0000

8

8

MS20470AD5-5 5

Rivet

DAS

6

DAS

28

9-89

9-89

EAS

27

9-89

Location

Loc Qty

Loc Code

ST309

974

m134063

974

646.3711

Manufactured

No

110

Each

8.0000

1

1

646 3711

Clip

DAS

6

DAS

28

9-89

9-89

EAS

27

9-89

Location

Loc Qty

Loc Code

cck105

8

120626

8

646.3712

Manufactured

No

110

Each

22.0000

1

1

646 3712

Clip

DAS

6

DAS

28

9-89

9-89

EAS

27

9-89

Location

Loc Qty

Loc Code

cck105

22

140787

22

MAY 16 2016



Work Order update only

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION ☐ Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved		AGAINST DEPARTMENT/PROCESS ☐ Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause ☐ Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence							
		OTHER :							

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 6

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3811

Manufactured No

110

Each

14.0000

1

1

646 3811

Radius Block

DAS
27
9-89

**

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

14

140895

14

110

Each

273.0000

2

2

AN3-6A

Purchased

No

**

DAS
6
9-89
DAS
28
9-89

AN3-6A

Bolt

Location

Loc Qty

Loc Code

over003

175

M134055

175

ST349

98

M133932

98

110

Each

254.0000

3

3

MS24694-S55

Purchased

No

**

DAS
6
9-89
DAS
28
9-89

MS24694-S55

Screw

Location

Loc Qty

Loc Code

ST283

254

m132803

4

m133988

83

~~m133988~~

17

m134376

150

110

Each

17.0000

1

1

646.3610

Manufactured

No

**

DAS
28
9-89
DAS
6
9-89
MAY 14 2016

646 3610

Filler

Location

Loc Qty

Loc Code

cck104

17

140240

3

141103

14

DAS
27
9-89

Friday, March 11, 2016 9:57:15 AM

Shop Packet Print

Page 6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 7

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3714	Manufactured	No	110	Each	13.0000	1	1	DAS 6 9-89	DAS 28 9-89
----------	--------------	----	-----	------	---------	---	---	------------------	-------------------

646 3714

Gusset

DAS
27
9-89

Location

Loc Qty

Loc Code

cck105

13

140048

13

DAS
6
9-89

MS20470AD5-6

Purchased

No

110

Each

864.0000

8

8

**

DAS
28
9-89

MS20470AD5-6

RIVET

DAS
27
9-89

Location

Loc Qty

Loc Code

ST309

864

124089

864

DAS
6
9-89

646.3812

Manufactured

No

110

Each

5.0000

2

2

**

DAS
28
9-89

646 3812

Gusset Bracket

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

5

140058

5

DAS
6
9-89

AN3-3A

Purchased

No

110

Each

300.0000

4

4

**

DAS
28
9-89

AN3-3A

Bolt

DAS
27
9-89

Location

Loc Qty

Loc Code

ST350

300

m134294

200

m134376

100

MAY 14 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																											
Description Work Order Deviation		Disposition																																																																													
<table style="width:100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: left;">Root Cause</th> <th colspan="3" style="text-align: left;">FAULT CATEGORY</th> </tr> <tr> <td style="width:15%;">Environment ☐</td> <td style="width:15%;">No Re-verification ☐</td> <td style="width:15%;">Pressure/Forced ☐</td> <td style="width:15%;">Temperature/Cure ☐</td> <td style="width:15%;">Power Loss/Surge ☐</td> <td style="width:15%;">Positioned Wrong ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="4" rowspan="2" style="text-align: center; vertical-align: middle;"> OTHER : ☐ </td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </table>						Root Cause			FAULT CATEGORY			Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐				Misidentified ☐	Past Due ☐
Root Cause			FAULT CATEGORY																																																																												
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																										
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																										
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																										
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																										
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																										
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																										
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																										
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																										
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																										
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																										
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐																																																																													
Misidentified ☐	Past Due ☐																																																																														

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 8

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3813 Manufactured No

110 Each 6.0000 1 1

646 3813

Strut Bracket

**

DAS
6
9-89
DAS
28
9-89

BAS
27
9-89

Location Loc Qty Loc Code

CCK106 6

127453 1

140119 5

MS20470AD5-7 Purchased No

110 Each 470.0000 3 3

MS20470AD5-7

Rivet

**

DAS
6
9-89
DAS
28
9-89

BAS
27
9-89

Location Loc Qty Loc Code

ST309 470

123425 470

MS21047-3 Purchased No

110 Each 185.0000 18 18

MS21047-3

Nut Plate

**

DAS
6
9-89
DAS
28
9-89

BAS
27
9-89

Location Loc Qty Loc Code

ST301 185

m134166 185

CCR264SS3-02 Purchased No

110 Each 406.0000 36 36

CCR264SS3-02

Rivet, Cherry

**

DAS
6
9-89
DAS
28
9-89

BAS
27
9-89

Location Loc Qty Loc Code

ST321 406

M134134 406

MAY 14 2016

Friday, March 11, 2016 9:57:15 AM

Shop Packet Print

Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 9

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-5A

Purchased

No

110

Each

152.0000

2

2

DAS

6

9-89

DAS

28

9-89

AN3-5A

Bolt

**

134502

Location

Loc Qty

Loc Code

FP001

44

m133686

4

m134055

40

GA

42

m133686

42

ST350

66

m134055

66

DAS

27

9-89

646.3715

Manufactured

No

110

Each

17.0000

2

2

DAS

6

9-89

DAS

28

9-89

646 3715

Strut Doubler

**

Location

Loc Qty

Loc Code

cck105

17

138365

16

139892

1

DAS

27

9-89

MS27039-1-12

Purchased

No

110

Each

139.0000

6

6

DAS

6

9-89

DAS

28

9-89

MS27039-1-12

Screw

**

Location

Loc Qty

Loc Code

over006

50

m134294

50

ST280

89

m133988

89

DAS

27

9-89

MAY 11 2016

Friday, March 11, 2016 9:57:15 AM

Shop Packet Print

Page 9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 9:57:15 AM

Page 10

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3716 Manufactured No

110

Each

38.0000

1

1

646 3716

Gauge Bracket

DAS
27
9-89

Location

cck105

140845

Loc Qty

38

38

Loc Code

**

DAS
6
9-89

DAS
28
9-89

MS20426AD5-7

Purchased

No

110

Each

1,009.000

2

2

MS20426AD5-7

RIVET

DAS
27
9-89

Location

ST311

M133922

Loc Qty

1009

1009

Loc Code

**

DAS
6
9-89

DAS
28
9-89

MS24694-S54

Purchased

No

110

Each

120.0000

2

2

MS24694-S54

SCREW

DAS
27
9-89

Location

ST284

m134063

m134376

Loc Qty

120

20

100

Loc Code

**

DAS
6
9-89

DAS
28
9-89

MS27039-1-21

Purchased

No

110

Each

317.0000

4

4

MS27039-1-21

Screw

DAS
27
9-89

Location

over006

m127904

ST280

m127904

Loc Qty

241

241

76

76

Loc Code

**

DAS
6
9-89

DAS
28
9-89

MAY 14 2016

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 11

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-20 Purchased No

110 Each 142.0000 2 2

MS27039-1-20

Screw

**

DAS
6
9-89
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

142

124326

142

2

MS27039-1-19 Purchased No

110 Each 217.0000 22 22

MS27039-1-19

Screw

**

DAS
6
9-89
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

over006

150

m134134

150

ST280

67

m134055

67

22

646.3717 Manufactured No

110 Each 9.0000 1 1

646 3717

Doubler

**

DAS
6
9-89
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

cck105

9

138175

9

1

646.3718 Manufactured No

110 Each 23.0000 2 2

646 3718

Custom Washer

**

DAS
27
9-89

Location

Loc Qty

Loc Code

cck105

23

140788

23

2

MAY 16 2016
DAS
6
9-89
DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																					
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																			
Description Work Order Deviation		Disposition																																																					
<table style="width:100%; border-collapse: collapse;"> <tr> <th style="width:25%;">Root Cause</th> <th style="width:25%;"></th> <th style="width:25%;">FAULT CATEGORY</th> <th style="width:25%;"></th> </tr> <tr> <td>Environment ☐</td> <td>No Re-verification ☐</td> <td>Pressure/Forced ☐</td> <td>Temperature/Cure ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="2" rowspan="2" style="text-align: center; vertical-align: middle;"> OTHER : ☐ </td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </table>						Root Cause		FAULT CATEGORY		Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐		Misidentified ☐	Past Due ☐
Root Cause		FAULT CATEGORY																																																					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐																																																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐																																																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐																																																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐																																																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐																																																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐																																																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐																																																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐																																																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐																																																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐																																																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐																																																					
Misidentified ☐	Past Due ☐																																																						

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 12

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3719 Manufactured No

110 Each 27.0000 2 2

646 3719

Doubler

**

DAS
6
9-89
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ckk105

27

138311

26

~~139893~~

1

2

MS27039-1-10

Purchased No

110 Each 428.0000 2 2

MS27039-1-10

SCREW

**

DAS
6
9-89
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CA

41

m128635

41

GA

50

m129541

50

ST280

337

m134166

37

~~m134370~~

300

2

AN3-11A

Purchased No

110 Each 191.0000 10 10

AN3-11A

Bolt

**

DAS
6
9-89
DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST349

191

m134167

191

10

DAS
6
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			

Root Cause	FAULT CATEGORY					
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐						

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 13

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

600.0990 Purchased No

110 Each 32.0000 1 1

600 0990

Magnabond 6398 Part A

DAS
28
9-89

Location Loc Qty Loc Code

CA002 12

M134167 12

CA2 12

M134249 12

PKG 8

M133800 8

600.0991 Purchased No

110 Each 32.0000 1 1

600 0991

MAGNOBOND 6398 PART B

DAS
28
9-89

Location Loc Qty Loc Code

CA002 12

m134167 12

CA2 12

m134249 12

PKG 8

m133800 8

600.1012 Purchased No

110 Each 24.0000 1 1

600 1012

Sealant PR1425B2 (#654 sem)

DAS
28
9-89

Location Loc Qty Loc Code

cck017 23

m133938 1

m133992 2

m134167 12

m134249 8

cck018 1

m131364 1

10/30/2015

MAY 16 2016

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER :			

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 14

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

600.0129 Purchased No

110 f

397.0000 8 8

600 0129

VHB TAPE 75935A651

BAS
27
9-89

Location

Loc Qty

Loc Code

CCK095

397

m127920

205

m131311

192

600.1013 Purchased No

110 Each

785.0000 5 5

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

BAS
27
9-89

Location

Loc Qty

Loc Code

CCK095

785

m131145

785

6/15/2016

646.3910 Manufactured No

110 Each

61.0000 4 4

646 3910

Shim

BAS
27
9-89

Location

Loc Qty

Loc Code

CCK106

61

136478

1

140772

60

646.3911 Manufactured No

110 Each

48.0000 1 1

646 3911

Shim

BAS
27
9-89

Location

Loc Qty

Loc Code

cck104

11

126229

11

CCK106

37

126059

37

MAY 16 2016

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 15

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

646.3912 Manufactured No

110 Each 67.0000 4 4

646 3912

Shim

DAS
27
9-89

**

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

CCK108A

67

140238

67

646.3913 Manufactured No

110 Each 87.0000 1 1

646 3913

Shim

DAS
27
9-89

**

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

cck023aq

81

126060

81

CCK106

6

124108

6

AN3-12A Purchased No

110 Each 141.0000 2 2

AN3-12A

Bolt

**

DAS
6
9-89
DAS
28
9-89

Location

Loc Qty

Loc Code

GA

2

m129682

2

over003

100

m134257

100

ST349

39

m133064

16

m133234

23

DAS
27
9-89

MAY 11 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 16

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

110

Each

198.0000

24

24

MS27039-1-16

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

over006

50

m134294

50

ST2820

148

m134142

148

**

DAS

6

9-89 DAS

28

9-89

NAS1149F0363P

Purchased

No

110

Each

408.0000

2

2

NAS1149F0363P

WASHER

DAS
27
9-89

Location

Loc Qty

Loc Code

ST262

408

124555

408

**

DAS

6

9-89

DAS

28

9-89

650.9201

Manufactured

No

110

Each

12.0000

2

2

650 9201

Eyelet Bracket Assembly

DAS
27
9-89

Location

Loc Qty

Loc Code

cck127

12

140179

12

**

DAS

6

9-89

DAS

28

9-89

AN44-5A

Purchased

No

110

Each

25.0000

2

2

AN44-5A

Eyebolt

DAS
27
9-89

Location

Loc Qty

Loc Code

ST339

25

m133990

2

m134134

23

**

DAS DAS

6 28

9-89 9-89

MAY 11 2016

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

Picklist Print

Friday, March 11, 2016 9:57:16 AM

Page 17

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

AN665-34R Purchased No

110

Each

45.0000

2

2

AN665-34R

Clevis

**

134052

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

OVER007

25

M134202

25

ST330

20

M134029

10

st330

10

AN4C7A Purchased No

110

Each

80.0000

2

2

AN4C7A

BOLT

**

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

OVER002

20

m133523

20

ST345

60

m133790

14

m133990

46

NAS1149F0432P Purchased No

110

Each

1,023.000

4

4

NAS1149F0432P

WASHER

**

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST262

902

M133990

902

st268

121

M132677

121

4

MAY 14 2016

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Page 18

Friday, March 11, 2016 9:57:16 AM

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L4 Purchased No

110 Each 1,791.000 2 2

MS21042L4

Locknut

**

134606

DAS 6 28 9-89 9-89

Location	Loc Qty	Loc Code
FP001	37	
m133363	37	
GA	447	
m133769	447	
ST303	1210	
m134055	1210	
ST305	97	
m130922	97	

DAS 27 9-89

27

AN316C4R Purchased No

110 Each 53.0000 2 2

AN316C4R

NUT

**

DAS 6 28 9-89 9-89

Location	Loc Qty	Loc Code
ST331	53	
m133234	43	
m133523	10	

DAS 27 9-89

MS21042-3 MS21042L3 Purchased No

110 Each 18.0000 2 2

MS21042-3

Nut / use MS21042L3

**

134360

DAS 28 9-89

Location	Loc Qty	Loc Code
ST304	18	
M129682	18	

DAS 27 9-89

MS27039-08-13 Purchased No

110 Each 256.0000 2 2

MS27039-08-13

Screw

**

DAS 6 28 9-89 9-89

Location	Loc Qty	Loc Code
ST278	256	
124326	256	

DAS 27 9-89

2

MAY 11 2016

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			

Root Cause	FAULT CATEGORY		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐
		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐			

Picklist Print

Page 19

Friday, March 11, 2016 9:57:16 AM

Work Order ID: 142628

142628

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 5/10/2016

Required Date: 5/20/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042-08 MS21042L08 Purchased No

110 Each 33.0000 2 2

MS21042-08

USE MS21042L08

**

M134376

DAS
28
9-89

BAS
27
9-89

Location

Loc Qty

Loc Code

ST304

25

122815

25

ST306

8

m130388

8

NAS1149FN832P Purchased No

110 Each 3,671.000 4 4

NAS1149FN832P

Washer

**

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

1361

M133316

16

M133769

1345

ST260a

1200

M134257

1200

ST262

1110

M133709

1110

MS24693-C278 Purchased No

110 Each 30.0000 5 5

MS24693-C278

Screw

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST287

30

m133998

10

m134257

20

646.9410 Manufactured No

110 Each 0.0000 1 1

646 9410

Shim

**

140671

DAS
28
9-89
MAY 14 2016

BAS
27
9-89

BAS
27
9-89

Friday, March 11, 2016 9:57:16 AM

Shop Packet Print

Page 19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED
BY

J. BECKER

DATE: 02/04/16

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR

MFG

QC

EFF.

NEXT ORDER

TRANSACTION CODES (TC):

A-ADD
R-REVISE

C-CREATE
D-DELETE

REASON: REVISED F/N 12.

ECR:

N/A

ACTION ITEM:

1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 142628 MLS

1603-11

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2 INSTALL F/N 14 WITH F/N 52 & 53.

3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5 REUSE FASTENERS FROM F/N 1.

6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

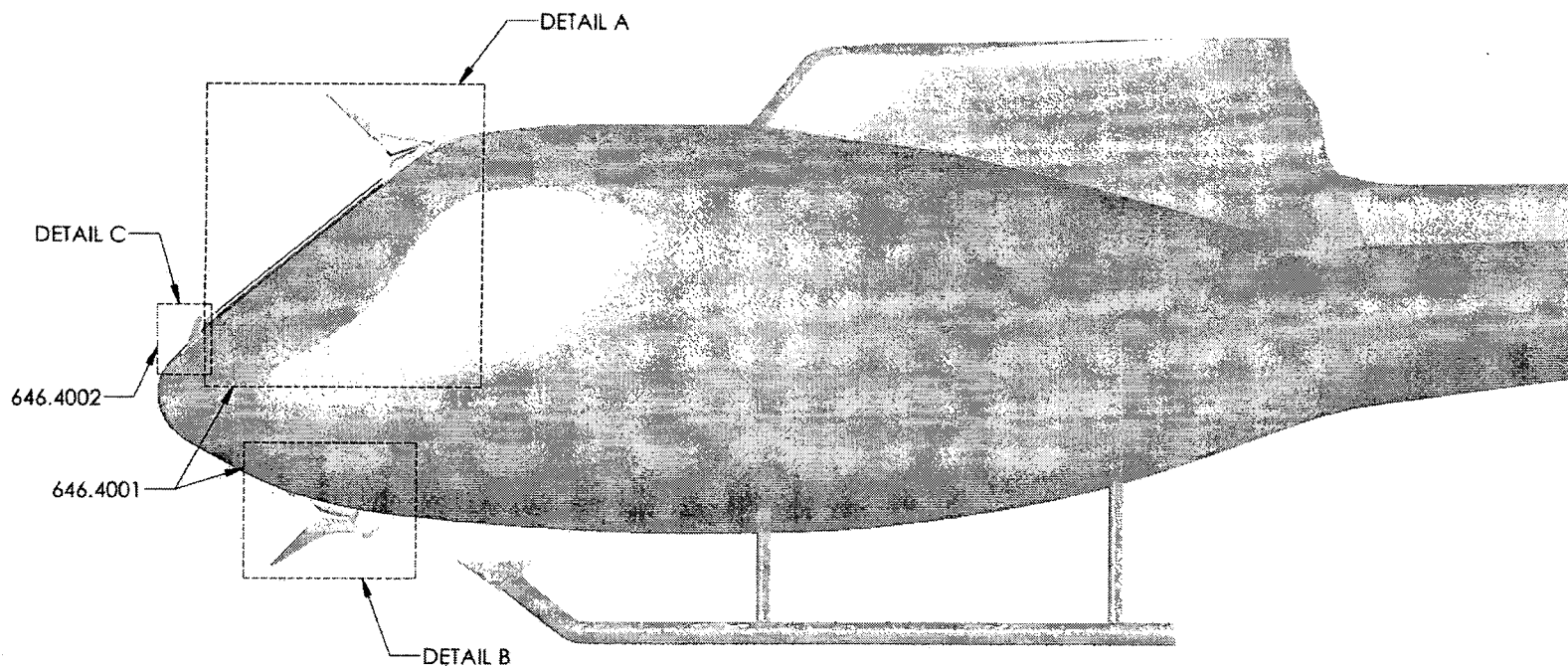
5	5	5	78	601.3875	SCREW	MS2464554				
1	1	1	77	646.9410	SHIM					
	4	4	76	601.2764	WASHER	NAS1149FD432P				
	2	2	75	601.2973	LOCKNUT	MS21042-08				
	2	2	74	601.2988	SCREW	MS27039-0815				
	2	2	73	601.2943	LOCKNUT	MS21042-3				
	2	2	72	601.3128	NUT	AN316CAR				
	2	2	71	601.3209	LOCKNUT	MS21042-4				
	4	4	70	601.2638	WASHER	NAS1149FD432P				
	2	2	69	601.2669	BOLT	AN4C7A				
	2	2	68	601.3119	CLEVIS	AN645-34R				
	2	2	67	601.3121	EYE BOLT	AN645-5A				
	2	2	66	650.9201	EYE BRACKET ASSY					
REF	REF	REF	65	647.5701	GPS MOUNT KIT					
		2	64	601.3151	WASHER	NAS1149FD363P				
		2	63	601.2911	SCREW	MS2464553				
	24	24	62	601.2637	SCREW	MS27039-1-16				
2	2	2	61	601.2763	BOLT	AN3-12A				
	1	1	60	646.3913	SHIM					
	4	4	59	646.3912	SHIM					
	1	1	58	646.3911	SHIM					
	4	4	57	646.3910	SHIM					
	5	5	56	600.1013	PRIMER					
	8 FT	8 FT	55	600.0129	VHB TAPE					
	1	1	54	600.1012	SEALANT	PR-1400 CLASS B				
	1	1	53	600.0991	MAGNABOND 6398 PART B					
	1	1	52	600.0990	MAGNABOND 6398 PART A					
6	10	10	51	601.2826	BOLT	AN3-11A				
		2	50	646.3814	WIPER BRACKET					
		2	49	601.2910	SCREW	MS27039-1-16				
2		2	48	601.1365	SCREW	MS27039-1-10				
2		2	47	646.3719	DOUBLER					
	2	2	46	646.3718	CUSTOM WASHER					
	1	1	45	646.3717	DOUBLER					
	22	2	44	601.1948	SCREW	MS27039-1-19				
	2	2	43	601.1952	SCREW	MS27039-1-20				
	4	4	42	601.1956	SCREW	MS27039-1-21				
4005	4003	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02111, 02361, 02719 & 02745	02/06/2010	P. BRAVO
B	INCORPORATED ECN 03046, 03079 & 04731	11/04/2014	P. BRAVO
C	INCORPORATED ECN 05096	06/04/2015	P. BRAVO

		2		2	41	601.2829	SCREW	MS2464554		
		2		2	40	601.2831	RIVET	MS2476A05-7		
		1		1	39	646.3716	GAUGE BRACKET			
		6		6	38	601.1953	SCREW	MS21042-1-12		
	2			2	37	646.3715	STRUT DOUBLER			
		2		2	36	601.2824	BOLT	AN3-5A		
12	36			36	35	601.2277	RIVET	CCR03465-02		
6	18			18	34	600.0795	NUTPLATE	MS21047-5		
3	3			3	33	601.2565	RIVET	MS2476A05-7		
1	1			1	32	646.3813	STRUT BRACKET			
4	4			4	31	601.2822	BOLT	AN3-3A		
2	2			2	30	646.3812	GUSSET BRACKET			
8	8			8	29	601.2564	RIVET	MS2476A05-6		
1	1			1	28	646.3714	GUSSET			
	1	1		1	27	646.3610	FILLER			
3	3			3	26	601.2830	SCREW	MS2464555		
2	2			2	25	601.2825	BOLT	AN3-6A		
1	1			1	24	646.3811	RADIUS BLOCK			
1		1		1	23	646.3712	CLIP			
1		1		1	22	646.3711	CLIP			
8	8			8	21	601.2832	RIVET	MS2476A05-5		
14	14			14	20	601.2020	RIVET	CR0210-5-3		
4	6	4	6	10	19	601.2823	BOLT	AN3-6A		
1	1	1	1	1	18	601.2827	BOLT	AN3-13A		
5	5	5	5	5	17	601.2912	SCREW	MS2464551		
1	1			1	16	646.3713	GUSSET			
1	1			1	15	646.3210	SUPPORT			
		1		1	14	646.3710	DOUBLER			
	1	1		1	13	646.3110	CHANNEL			
14	10	8	53	6	61	601.1624	LOCKNUT	MS21042-3		
16	32	18	120	16	144	601.1607	WASHER	MS210470032P		
				1	10	646.3410	LH WIPER DEFLECTOR			
				1	9	646.3411	RH WIPER DEFLECTOR			
			2		8	647.7703	STRUT ASSY			
			2		7	647.0112	STRUT BRACKET			
	1		1		6	646.3511	STRUT			
	1		1		5	646.3510	STRUT			
2		2			4	646.3610	BRACKET			
			1		3	646.2910	DEFLECTOR			
	1		1		2	646.3001	LOWER CUTTER ASSY			
			1		1	646.3301	UPPER CUTTER ASSY			
X						646.4006	LOWER CUTTER FIXED PROVISIONS			
	X					646.4005	LOWER CUTTER REMOVABLE PROVISIONS			
		X				646.4004	FIXED PROVISIONS KIT			
			X			646.4003	CABLE CUTTERS FOR WIRECUT FIBER PROVISIONS			
				X		646.4002	AS350 WIPER DEFLECTOR KIT			
					X	646.4001	AS350 CABLE CUTTERS KIT			
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

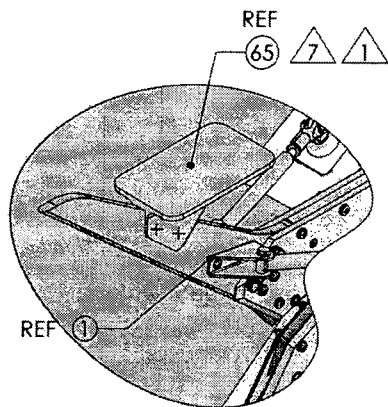
QTY		PARTS LIST	
NEXT ASSY (S)		ORIGINAL CASE DIMENSIONAL 1.000"	
		DRAWING APPROVAL BY: [Signature] DATE: [Date]	
		DART AEROSPACE 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
		AS350 CABLE CUTTERS KIT SEE DRAWING CODE: 07M16 SCALE: NONE	
		SHEET 1 OF 5	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AERICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS
WRITTEN PERMISSION OF AERICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



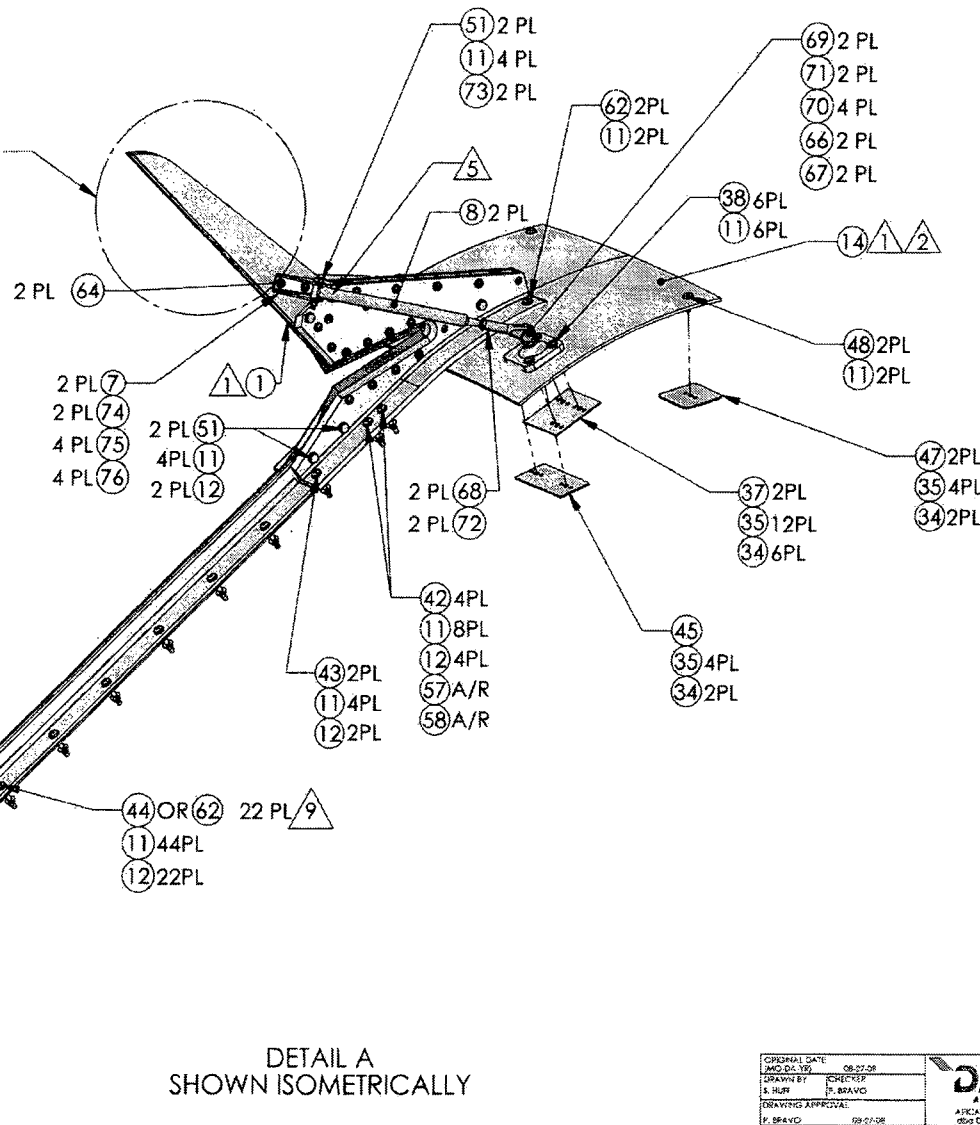
ORIGINAL DATE 08-27-08		DART 3030 ENTERPRISE CT., SUITE A	
DRAWN BY K. HERR		AEROSPACE VISTA, CA. 92081	
E. HERR P. BEAVER		ALICAL INDUSTRIES INC. 8800 DART AEROSPACE	
DRAWING APPROVAL 08-27-08		AS350 CABLE CUTTERS KIT	
CONTRACT NO.		REV C	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.5°		REV B 07M26	DWG. NO. 646.4000
SCALE NONE		SHEET 2 OF 5	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AFICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF AFICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION

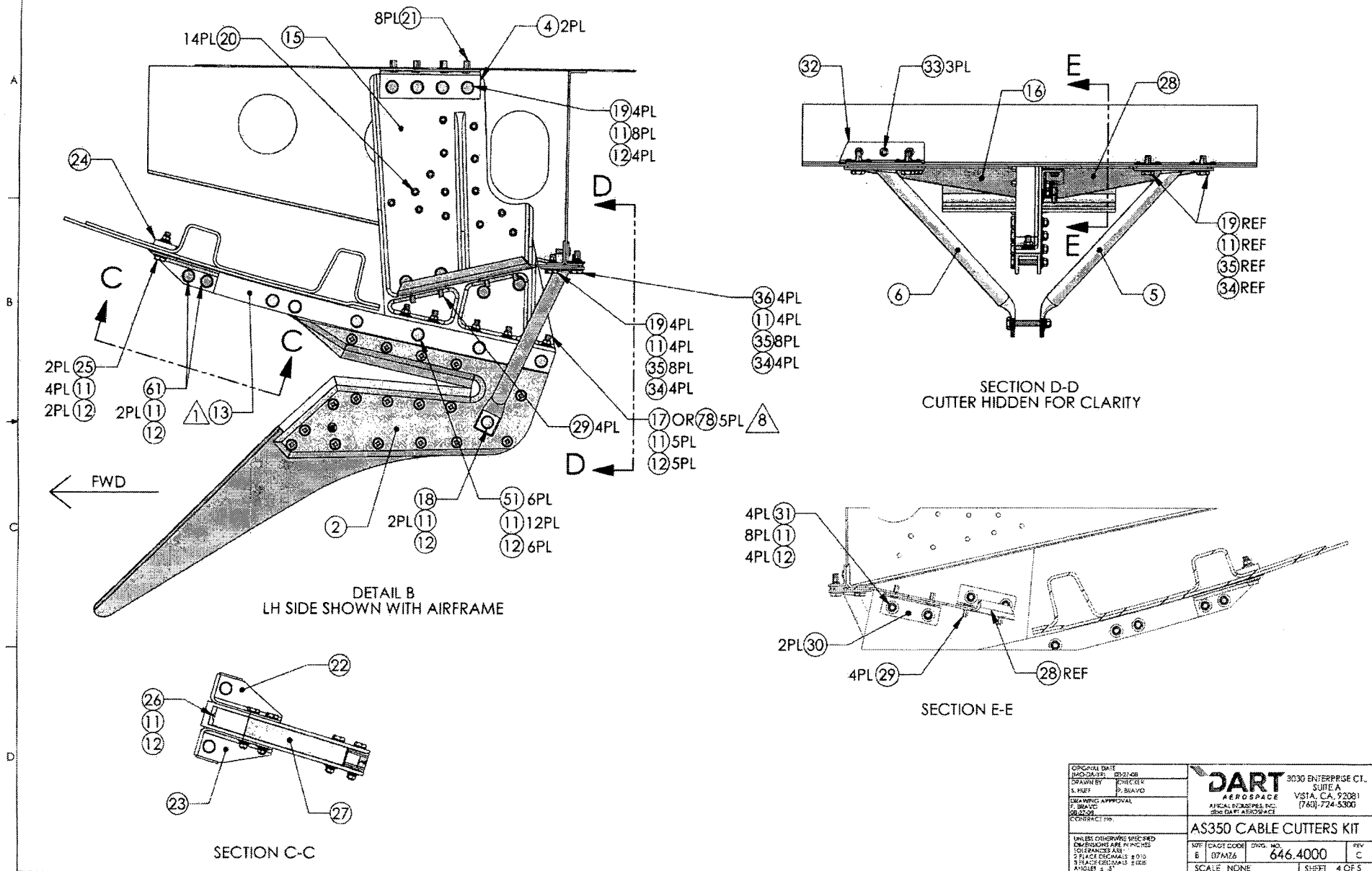
DETAIL D



DETAIL A
SHOWN ISOMETRICALLY

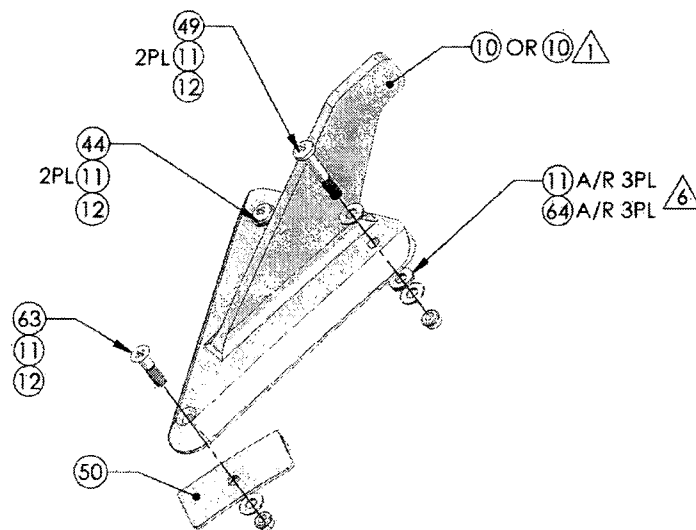
ORIGINAL DATE: 08-27-08		3030 ENTERPRISE CT., SUITE A	
DRAWN BY: SCHNEPP		VISTA, CA. 92081	
S. HUFF		(760)-724-5300	
DESIGNER'S APPROVAL:		AFICAL INDUSTRIES INC. DBA DART AEROSPACE	
S. BRAVO		AS350 CABLE CUTTERS KIT	
CONTRACT NO.:		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.1°		SHEET 3 OF 5	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE 03-27-08		DRAWN BY CHECKED		L. HUFF P. BRAVO	
DRAWING APPROVAL P. BRAVO		DART AEROSPACE		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
CONTRACT NO.		AS350 CABLE CUTTERS KIT		REV	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± 0.10 3 PLACE DECIMALS ± 0.005 ANGLE ± 1°		REV	CAGE CODE	DWG. NO.	REV
B		07A126	646.4000	C	
SCALE		NONE		SHEET 4 OF 5	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE JUG DA 191 08-27-06		DART 3030 ENTERPRISE CT. AEROSPACE SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY S. HUBB			
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES INC.	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .010 3 PLACE DECIMALS .005 ANGLES .5°		SHEET 8 OF 5 DATE CODE 07M26 DWG. NO. 646.4000 SCALE NONE	REV. C SHEET 5 OF 5

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

1. AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.
2. INSTALL F/N 14 WITH F/N 52 & 53.
3. 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.
4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.
5. REUSE FASTENERS FROM F/N 1.
6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.
7. AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.
8. INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 76 SCREW IN PLACE OF F/N 17 SCREW.
9. NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(s)

05304

[illegible]

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECLC 02199, 02351, 02719 & 02765	02/06/2010	P. BRAVO
B	INCORPORATED ECH 03044, 03079 & 04737	11/04/2014	P. BRAVO
C	INCORPORATED ECH 03096	09/04/2015	P. BRAVO

				2			41	601.2829	SCREW	M52469J55A	
				2			40	601.2831	RIVET	M57C92AD5-7	
				1			39	646.3716	GUAGE BRACKET		
				6			38	601.1953	SCREW	M527D39-1-PZ	
		2		2			37	646.3715	STRUT DOUBLER		
	2		2				36	601.2824	BOLT	AN3-SA	
12		36				35	601.2277	RIVET	CRCR244S-B2		
	6	18				34	600.0795	NUTPLATE	M521O47-G		
	3	3				33	601.2565	RIVET	M52DM7CAD5-7		
	1	1				32	646.3813	STRUT BRACKET			
	4	4				31	601.2822	BOLT	AN3-SA		
	2	2				30	646.3612	GUSSET BRACKET			
	8	8				29	601.2564	RIVET	M5GQW0AD5-6		
	1	1				28	646.3714	GUSSET			
		1	1			27	646.3610	FILLER			
		3	3			26	601.2930	SCREW	M52469J55B		
		2	2			25	601.2825	BOLI	AN3-AA		
		1	1			24	646.3811	RADIUS BLOCK			
		1	1			23	646.3712	CLIP			
		1	1			22	646.3711	CLIP			
	8	8				21	601.2832	RIVET	M52HATAD5-5		
	14	14				20	601.2020	RIVET	CR3213-S-3		
	4	6	4	6		19	601.2823	BOLTS	AN3-AA		
		1	1			18	601.2827	BOLT	AN3-ISA		
		5	5			17	601.2912	SCREW	M52469J55I		
		1	1			16	646.3713	GUSSET			
		1	1			15	646.3210	SUPPORT			
						14	646.3710	DOUBLER			
		1	1			13	646.3710	CHANNEL			
	14	10	8	53	6	12	601.1624	LOCKNUT	M52TDAK-L3		
	16	32	18	120	16	11	601.1627	WASHER	MAS11FFU32P		
						10	646.3410	LH WIPER DEFLECTOR			
						9	646.3411	RH WIPER DEFLECTOR			
					2	8	647.7703	STRUT ASSY.			
					2	7	647.0112	STRUT BRACKET			
					1	6	646.3511	STRUT			
					1	5	646.3510	STRUT			
	2		2			4	646.3610	BRACKET			
						3	646.2910	DEFLECTOR			
						2	646.3001	LOWER CUTTER ASSY			
						1	646.3301	UPPER CUTTER ASSY			
X							646.4006	LOWER CUTTER FIXED PROVISIONS			
							646.4005	LOWER CUTTER REMOVABLE PROVISIONS			
							646.4004	FIXED PROVISIONS KIT			
							646.4003	EABLE CUTTER KIT WITH HOLES FIRED PROVISIONS			
							646.4002	A3350 WIPER DEFLECTION KIT			
							646.4001	646.4001 CABLE CUTTERS KIT			
4006	4005	4004	4003	4002	4001	PIND #	PART #	DESCRIPTION	MATERIAL	SPEC.	

QTY		PARTS LIST	
NEXT ASSY IS:		 3030 ENTERPRISE CT., SUITE A YUMA, C.A. 92081 (760) 724-5300 APCAL BROADCAST INC. (800) DART AEROSPACE	
ORDER DATE 05-21-05 DRAWN BY J. PREISER DESIGNED BY J. PREISER CHECKED BY J. PREISER APPROVED BY J. PREISER CONTRACT NO.		ASSY CABLE CUTTERS KIT 1/31 PAGE CODE: 67416.000 QTY. NO. 646.4000 SCALE NONE SHEET 1 OF 5	